

## CLAIMS

[1] An MPEG audio decoding method for decoding an audio stream, comprising:

a compression process of compressing a plurality of allocation tables used when searching for the number of quantization steps and storing a compressed table in a memory; and

a decoding process of decoding the number of quantization steps by using the compressed table stored in the memory, wherein:

the compression process includes:

a first step of converting each said allocation table by reducing each group of subbands sharing a pattern to one, said pattern representing a relationship between an index value and the number of quantization steps;

a second step of converting the converted allocation tables into a single first table by reducing each group of subbands sharing said pattern to one; and

a third step of defining, in a second table, offset values each corresponding to one subband, which are used for referencing the first table;

the compression process stores the first and second tables, as the compressed table, in the memory; and

the decoding process includes:

a first step of obtaining an offset value by referencing the second table using a subband as a key; and

a second step of referencing the first table using the offset value obtained in the first step to obtain the number of quantization steps from said pattern read out.

[2] The MPEG audio decoding method of claim 1, wherein in the second step of the compression process, the first table is further converted by using a bit allocation where each bit uniquely represents the number of quantization steps.